

Working Together: Communities and Scientists Can Make a Difference

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by Samuel H. Wilson

Removing toxicants from the environment is not environmental health in its entirety; health is a state of mental and physical well being. The term environmental health should convey health and also should convey a beautiful, livable environment that promotes well being and improved quality of life.

At the National Institutes of Health, environmental health research is mainly the science of prevention - prevention of disease from environmental exposures over a long period of time. In the past 30 years we, as a nation working together, have made remarkable strides in preventing disease caused by environmental exposures. We have lowered lead and DDT levels in humans and have made the environment safer. The air is cleaner; our rivers are no longer on fire; waste is handled more safely.

Yet, environmental diseases remain a big problem. For example, cancer continues to be a tremendous public health burden; metal toxicity from lead or mercury significantly impacts intelligence in exposed children; asthma is on the rise and is a major health concern; birth defects continue, occurring in more than 1% of all pregnancies in the U.S.; and diabetes related to dietary factors and to other environmental factors is on the rise.

If we want to protect our future, and to protect future generations, we have a lot of work to do in environmental health, especially, in balancing the essentials of continued economic growth with the prevention of disease.

Our field of environmental health has become too focused. The local communities and the nation's scientists have failed to take a leadership role; and, because of that failure, communities and scientists are all too often taken out of the picture. This opens the door for the regulatory agencies and special interest groups to take the lead and, in so doing to narrow the boundaries of environmental health. Narrow boundaries, around the definition of problems and regulations, are dictated by narrow regulatory agendas or legislative mandates or by narrow regulatory agency goals. The narrow debate, focused intensely on risk assessment and regulation of just one chemical, such as mercury, consumes tremendous amounts of energy and builds divisiveness and conflict. Ultimately, these narrow boundaries cause us "to miss the forest for the trees." This marginalizes the field and also leads to the "one size fits all" type of regulation. Examples abound, such as current debates on the MTBE fuel additive and the amount of methyl mercury in the diet. Consider the conflict between the World Health Organization's malaria control program in certain parts of the world and interest groups focused narrowly on banning any use of DDT, no matter how well-considered and selective toward preventing disease. Common sense says that it would be in the best interest of both groups to eliminate malaria wherever possible and, therefore, get around the need for future use of DDT altogether. These complex and controversial issues can only be solved if human health is viewed as the overriding common value, and if com-

promise and common sense are used to help determine a policy that is in the best interest of the public.

What can be done to move us forward? The local communities and the scientists, not the regulatory agencies, need to assume the lead in finding common sense solutions. For example, what are the problems right here in this community, and what are the trade-offs that work best here? Common sense, well-reasoned, scientifically-based solutions can only be found if the issues are properly defined at the state and local level, and if the proper information is made available.

Now, do not get me wrong. The regulatory agencies, like the EPA, FDA, and OSHA are doing what they are supposed to be doing. We simply have to find more ways to get communities and scientists to take the lead. The regulatory agencies are simply filling a gap created by the lack of our involvement. We have to reverse this trend. The gap must be filled by the communities and the scientists. We should take the lead in addressing environmental issues, and we should do it now!

Problems in environmental health need to be defined in real world terms - what is happening right here in this community. Problems should be approached in a balanced way, and by including sound science and the environmental health perspective. Indeed, scientists can often help in finding the interconnections that will prevent narrow boundaries.

Environmental science at the state and local levels must grow and help in defining the problems and in setting policy; scientists must work to create new information, in prevention and for cleaning toxic sites; and finally, scientists must participate in finding ways to have environmentally sound economic growth and prosperity.

Today we are dedicating The Institute of Environmental and Human Health at Texas Tech. The Institute will be a leader in research and education, integrating the environmental and human health sciences. Working with the community, the Institute can help change the equation - working to take leadership responsibility for our environmental health future. Working together, we can make a difference.

I congratulate the vision of the Texas Tech University System for establishing The Institute. We at the National Institutes of Health look forward to working with you in the future, as we give thought to such topics as border environmental health and other regional environmental research needs.

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